CLAIMS

1. (currently amended) A process for producing biaxially stretched polypropylene copolymer films in which random propylene copolymers with other 1-alkenes having up to 10 carbon atoms,

whose content of comonomers is in the range from 0.7 to 1.4% by weight if the only comonomer present in the propylene copolymers is ethylene, or whose content of comonomers is in the range from 0.7 to 3.0% by weight if at lest one C_4-C_{10}-1-alkene is present as comonomer, and

whose cold-xylene-soluble fraction is from 1.0 to 2.5% by weight if ethylene is present as a comonomer in the propylene copolymers, or

whose cold-xylene-soluble fraction is from 0.75 to 2.0% by weight if the only comonomers present are C_4-C_{10}-1-alkenes,

are melt extruded through a die to give a film, the extruded film is cooled to from 100 o 20°C so that is solidifies, the solidified film is stretched in the longitudinal direction at from 80 to 150°C with a stretching ratio of at least 4:1 and in the transverse direction at from 120 to 170°C with a stretching ratio of at least 5:1,

wherein said random propylene copolymers are obtained by polymerizing propylene with other 1-alkenes having up to 10 carbon atoms in the gas phase at from 50 to 100°C and at a pressure of 15 to 40 bar in the presence of a Ziegler-Natta catalyst system comprising

a) a titanium-containing solid component comprising at least one halogen-

containing magnesium compound, an electron donor, and an inorganic oxide as support,

b) an aluminum compound and

c) at least another electron-donor compound

and the ratio of the partial pressures of propylene and of the comonomers is in the range from 400:1 to 15:1 and the molar ratio of the aluminum compound b) and the other electron-donor compound c) is in the range from 20:1 to 2:1.

2. (previously presented) A process as claimed in claim 1 in which said random propylene copolymers comprise exclusively ethylene as comonomer.

3. (withdrawn) A process as claimed in claim 1 in which said random propylene copolymers comprise 1-butene as comonomer.

4. (previously presented) A process as claimed in claim 1 in which said random propylene copolymers have a Q_5 value greater than or equal to 200, where Q_5 is given by

$$Q_5 = 1000 \times \frac{\mu(T_m)}{\mu(T_m\text{-}5K)}$$

and

$\mu(T_m)$ is the elongational viscosity of the random propylene copolymer at the lowest temperature at which the copolymer is fully molten, and $\mu(T_m\text{-}5K)$ is the elongational viscosity at a temperature which is lower by 5K, and the elongational viscosities are determined 2 seconds after stretching beings at a constant strain rate (Hencky) strain rate) ε of 0.2 s^{-1}.

5. (previously presented) A process as claimed in claim 1 in which said random propylene copolymers have a PI (Processability Index) of greater than 18, where the PI is determined from the formula

$$PI = \ln(SH + 1)\cdot(\ln Q_3 + \ln Q_5),$$

Q_5 is given by

$$Q_5 = 1000 \times \frac{\mu(T_m)}{\mu(T_m\text{-}5K)}$$

and Q_3 is given by

$$Q_3 = 1000 \times \frac{\mu(T_m)}{\mu(T_m\text{-}3K)},$$

$\mu(T_m)$ is the elongational viscosity at the lowest temperature at which the copolymer is fully molten, $\mu(T_m\text{-}5K)$ is the elongational viscosity at a temperature which is lower by 5K and $\mu(T_m\text{-}3K)$ is the elongational viscosity at a temperature which is lower by 3K, and the elongational viscosities are determined 2 seconds after stretching begins at a constant strain rate (Hencky strain rate) ε of 0.2 s^{-1},

and the factor SH (Strain Hardening) is the ratio of the maximum gradient of the curve of elongational viscosity plotted against time on a double logarithmic scale for temperatures less than T_m-5K to the gradient of the elongational viscosity curve 1 second after stretching begins at a constant Hencky strain rate ε of 0.2 s^{-1} at a temperature of T_m-5K.

6. Canceled.